Hepatitis C may increase deaths from both liver-related and other diseases

18 July 2012

[EMBARGOED FOR JULY 18, 2012] In a long-term study of people infected with the hepatitis C virus (HCV), researchers found increased deaths from both liver-related and non-liver related diseases in patients with active infections who had not cleared their infection.

The study, published in the Journal of Infectious Diseases and available online, found increased mortality in patients with chronic HCV infection-that is, with detectable levels of HCV genetic material, or RNA, in their blood-suggesting that chronic HCV infections, even in people who have no symptoms, can lead to increased mortality from liver disease or a variety of other causes. The findings highlight the importance of people getting tested for HCV antibodies and for active HCV infection-and of evaluating patients for antiviral treatment when they are found to have an active HCV infection, even when they feel well.

HCV infects more than 170 million people globally and has been shown to cause such liver diseases as cirrhosis and hepatocellular carcinoma. Many infected patients have no symptoms and are not aware of infection until after irreversible liver disease has occurred. In addition, several diseases not related to the liver have been linked to HCV. However, nearly two-thirds of patients can be cured of their HCV infection with currently available antiviral therapy.

Chien-Jen Chen, ScD, and researchers from the Genomic Research Center in Taipei, Taiwan, enrolled more than 23,000 adults in Taiwan in their study and followed them from 1991 to 2008. Blood samples were collected at study entry and at follow-up health examinations. Researchers found increased mortality from liver- and non-liver-related diseases-including cancers of the esophagus, prostate, and thyroid, as well as circulatory and renal diseases-among those infected with HCV. Mortality was higher in HCV-infected participants with detectable serum levels of HCV RNA, indicating they had active infections; subjects with previous infections who only had HCV antibodies, but not HCV RNA, in their blood did not have increased mortality on follow-up.

According to Dr. Chen, "The findings implied that the serum HCV RNA level is an important marker for clinical decisions in the management of HCV-infected patients." Dr. Chen suggested that HCV-infected patients may benefit from treatment with antiviral and immunomodulating agents to promote viral clearance.

The investigators concluded that their findings have significant implications for clinical practice and public health-namely, that individuals seropositive for HCV RNA should be followed intensively and urged to be evaluated for antiviral therapy. In addition, they noted, testing to determine serum HCV RNA level by a sensitive assay is essential for clinical management of HCV-infected patients.

Dr. Chen and his colleagues cautioned that some non-liver-related diseases are too rare to accurately determine their risk in connection with HCV infection. They suggested that a collaborative study with a large sample size would be needed in order to further investigate the full spectrum of diseases associated with HCV.

In an accompanying editorial, Kenrad E. Nelson, MD, of Johns Hopkins University in Baltimore, noted that overall mortality was significantly increased from liver-related and other causes compared to uninfected patients from the same communities in the study. The findings indicate that, although some who are infected with HCV can cure their infection without treatment, most people who are infected and who have no symptoms develop chronic infections and are at increased risk of death from HCV, Dr. Nelson said.

Many patients with HCV infection go undiagnosed, and among those whose infection is detected, "few

are medically evaluated and effectively treated," Dr. Nelson added. Although treatment for HCV infection is improving dramatically, he noted, a significant reduction in HCV-related mortality will require that screening measures are greatly expanded.

Provided by Infectious Diseases Society of America